

REMARKS

By this Response, Applicants have added new claim 28. As provided above, Applicants authorize the Commissioner to charge the requisite fee of \$250.00 dollars to deposit account 03-0335 docket number OTD-030414. Upon entry of the above-provided amendments, claims 1, 2, 5-28 will be pending. Respectfully, reconsideration and allowance of all pending claims is requested.

A copy of the WO 03/095873 is enclosed with form 1449, and entry of this reference into the record is requested.

Claim 6 has been amended to address the objection to it as focused on intended use. Instead, the claim recites that the first groove is deformed, which is a structural recitation for a dimension change. It happens that the claim recites the structural result of such deformation in further structural terms relating to the ends of the backup ring moving away from each other. It is submitted that the objection to claim 6 has been overcome.

Moving now to the claim rejections, Applicants would like to state a sincere desire to bring closure to the prosecution of these claims. Along those lines, Applicants have spent a great deal of time analyzing the Response to Arguments portion of the Office Action for a better understanding of why the same art continues to be the basis for claim rejections. Applicants now believe the claims presented to be allowable and will focus the discussion on the application of Taylor USP 3,869,132 to claim 1 and Kilmoyer as applied in combination to claim 5 and alone against claim 19.

First, as to claim 1, Applicants include the nested first and second bodies as elements of the claim along with the annular space between them because they are nested. This adopts directly a suggestion by the Examiner to distinguish Taylor.

The Examiner states that Taylor's backup ring is "capable of being compressed and be inserted between two bodies." However, the language of claim 1 is that the backup ring must be compressed "to be inserted" rather than the understanding of the Examiner that these are discrete and unrelated by the use of "and be inserted" in the Response to Arguments. Taylor in Figure 1 simply drops the seal into an unnumbered recess in flange half 10 so that when flange half 11 is bolted down an annular cavity is created (column 2 lines 60-61). It is the bolting together of the flanges that compresses the backup ring 14. This is to be contrasted with claim 1 that requires the backup ring to be compressed to simply get it into the annular space between the nested bodies that are now a part of claim 1. Indeed, Applicants respectfully submit that even if, *argendo*, the flange halves 10, 11 of Taylor are equated with the first and second bodies of claim 1, these flange halves are clearly not *nested*, in contrast to the recitations of claim 1.

As to the Examiner's assertion that the ends of the backup ring of Taylor loop toward each other to create a gripping engagement to the body under a residual force from insertion, Applicants respectfully disagree. Any residual force in Taylor is from bolting the flanges together. That stated, there is nothing in this reference to state that ends that look like they loop toward each other in the drawing actually do so. The Examiner is not permitted to scale drawings for conclusions that are unsupported from the specification.

Indeed, the Examiner may not abdicate his duty of establishing a *prima facie* case of anticipation by attributing features to a reference that are not necessarily present. In fact, the text of Taylor describes the seal at 12 of Taylor in a manner *antithetical* to the Examiner's interpretation. A residual force on the body of Taylor from the ends would be undesirable because in a fire the expansion of the elastomer before it is consumed is critical to expanding the legs apart of the ring 14 to get a fire seal. A residual force against the body works *against expansion* of the ring by the body in a fire situation. Accordingly, this reference teaches away from a residual force from insertion (since there is no force to store from simple insertion), and even if after bolting there is a residual force on the ring, that is not what is claimed in claim 1. Rather, the ends that loop toward

each other, on insertion, direct a force to the body that they surround. Again, the best the Examiner can do with Taylor is to make inferences from its drawings, which appear to be at cross purposes from the performance Taylor wants in a fire. Again, what Taylor wants is as little resistance as possible to expansion of the elastomeric material so that ring 14 will compliantly move into a sealing engagement from elastomer expansion before the elastomer is consumed. Indeed, the e-shaped design of Figure 4, by including an undulation right near each end, appears to drive the ends of the ring 14 away from the elastomer body, if one were to make inferences from the not-to-scale drawings. In short, Applicants respectfully submit claim 1 is not anticipated by this reference on quite a few levels and should now be allowed.

As to the Kilmoyer reference, Applicants respectfully submit that there is some misunderstanding of how it works. This discussion pertains to all combinations using Kilmoyer to reject an independent claim 5 or 19. The first figure of Kilmoyer to look at is Figure 4, which shows a section of the seal ring 40 showing without numbers the inner or smaller grooves (56 in Figure 2) and the outer or larger grooves (58 in Figure 2). Ring 46 is smaller than ring 48. Ring 46 is the inner ring that goes in the inner groove 56, while ring 48 is the outer ring that goes in the outer grooves 58. In the drawing of Figure 2 ring 48 has an outside diameter that extends beyond surface 42, and ring 46 has an inside diameter that extends beyond surface 52. The specification states at column 3, lines 9-14 that the cross-sectional area of rings 46 and 48 exceeds the cross-sectional area of their respective grooves to ensure sealing engagement to the surrounding nested bodies, as illustrated in Figure 4 as surfaces 22 and 27. Thus, the only thing the specification says is that the rings stick out of their respective grooves to contact surfaces 22 and 27.

What is claimed is something else entirely. Claims 5 and 19 specify a groove bottom as one dimension and the portion of the seal that contacts said bottom to be different, i.e., larger or smaller depending on inside or outside placement so that when mounted a residual force against the body is created that is radial and is perpendicular to the longitudinal axis. Another way of saying this is that there is an interference fit at the

groove bottom when the ring is fitted in the groove, and the result is a radial force on the groove bottom from the interference. The Examiner points to nowhere in Kilmoyer where it is stated that this happens. Again, all Kilmoyer says is that the rings are bigger in section than the groove so they stick out. That is a far cry from saying the ring dimension against the groove bottom creates a radial force. Again, the Examiner bears the burden of establishing a *prima facie* case, and such a case may not be established by unsupported attributions to what is disclosed by Kilmoyer. It is sincerely hoped that the above clarification of what Kilmoyer actually says in the section of Kilmoyer that the Examiner refers to will clear the way to allowance of these two independent claims.

With regard to independent claim 5, applicant does not waive the prior arguments as to the propriety of combining all the other references. Instead, to advance prosecution, applicant focuses on Kilmoyer as a large difference in how this reference is read on these claims is apparent from the record.

Claim 20 has been amended to be consistent with the language of claim 19 as applying to a groove on the inside or the outside of the body and the discussion above as to Kilmoyer is equally applicable to this claim. Similar changes have been made to claim 7.

With respect to new claim 28, Applicants respectfully submit that in view of the foregoing remarks and the language of the claim itself, it is in condition for allowance.

Accordingly, all pending claims are now submitted to be in allowable condition.

Respectfully submitted,



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